9/11 Terror

Muslims Suspend Laws of Physics!

Part I

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Some of the sources have departed since this essay was originally published on October 21, 2001. Where I could find substitutes I have indicated them with the word "or" and a reference to an alternative copy.
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I tried to be patriotic.

I tried to believe. I watched those quarter mile high buildings fall through their jaw-dropping catastrophes over and over again. I listened to the announcer and the experts explain what had happened. And I worked at my pitiful lack of faith, pounding my skull with the remote control and staring at the flickering images on the TV screen.

But poor mental peasant that I am, I could not escape the teachings of my forefathers. I fear I am trapped in my time, walled off from further scientific understanding by my inability to abandon the Second Millennium mindset.

But enough of myself. Let us move on to the Science and Technology of the 21st Century. Those of you who cannot believe should learn the official truth by rote and perhaps you will be able to hide your ignorance.

Here are the bare bones of the WTC incident:

> North tower struck 8:45 a.m. from the north at about the 93rd floor, collapsed about 10:29 a.m.
> South tower struck 9:03 a.m. from the south at about the 80th floor, collapsed about 9:50 a.m.;
> (http://www.infoplease.com/spot/sept112001.html)

- Impact locations estimated by Scientific American
  http://www.sciam.com/explorations/2001/100901wtc
- Geographic information for WTC given at
  http://www.911review.com/articles/jm/cache/washingtonpost_geog.html
- Comprehensive info on WTC with 3D model of complex at
  http://www.GreatBuildings.com/buildings/World_Trade_Center.html

	
North tower struck 8:45 a.m. from the north at about the 93rd floor	South tower struck 9:03 a.m. from the south at about the 80th floor

Using jet fuel to melt steel is an amazing discovery, really. It is also amazing that until now, no one had been able to get it to work, and that proves the terrorists were not stupid people. Ironworkers fool with acetylene torches, bottled oxygen, electric arcs from generators, electric furnaces, and other elaborate tricks, but what did these brilliant terrorists use? Jet fuel, costing maybe 80 cents a gallon on the open market.

Let us consider: One plane full of jet fuel hit the north tower at 8:45 a.m., and the fuel fire burned for a while with bright flames and black smoke. We can see pictures of white smoke and flames shooting from the windows.

Then by 9:03 a.m. (which time was marked by the second plane's collision with the south tower), the flame was mostly gone and only black smoke continued to pour from the building. To my simple mind, that would indicate that the first fire had died down, but something was still burning inefficiently, leaving soot (carbon) in the smoke. A fire with sooty smoke is either low temperature or starved for oxygen — or both.

But by 10:29 a.m., the fire in north tower had accomplished the feat that I find so amazing: It melted the steel supports in the building, causing a chain reaction within the structure that brought the building to the ground.

And with less fuel to feed the fire, the south tower collapsed only 47 minutes after the plane collision, again with complete destruction. This is only half the time it took to destroy the north tower.

I try not to think about that. I try not to think about a petroleum fire burning for 104 minutes, just getting hotter and hotter until it reached 1538 degrees Celsius (2800 Fahrenheit) and melted the steel (steel is about 99% iron; for melting points of iron and steel see http://www.webelements.com/webelements/elements/text/Fe/heat.html, http://www.weldtechnology.com/rwintroduction.html or http://www.911review.com/articles/jm/cache/rwintro.html).

(Celsius/Fahrenheit conversion tool at http://www.vaxxine.com/mgdsite/celcon.htm.)

I try not to wonder how the fire reached temperatures that only bottled oxygen or forced air can produce.

And I try not to think about all the steel that was in that building — 200,000 tons of it (for WTC statistics see http://www.infoplease.com/spot/wtc1.html or http://www.911review.com/articles/jm/cache/wtc_hist.html).

I try to forget that heating steel is like pouring syrup onto a plate: you can't get it to stack up. The heat just flows out to the colder parts of the steel, cooling off the part you are trying to warm up. If you pour it on hard enough and fast enough, you can get the syrup to stack up a little bit. And with very high heat brought on very fast, you can heat up one part of a steel object, but the heat will quickly spread out and the hot part will cool off soon after you stop.

Am I to believe that the fire burned for 104 minutes in the north tower, gradually heating the 200,000 tons of steel supports like a blacksmith's forge, with the heat flowing throughout the skeleton of the tower? If the collapse was due to heated steel, the experts should be able to tell us how many thousands of tons of steel were heated to melting temperature in 104 minutes and how much fuel would be required to produce that much heat. Can a single Boeing 767 carry that much fuel?

Thankfully, I found this note on the BBC web page (http://news.bbc.co.uk/hi/english/world/americas/newsid_1540000/1540044.stm or http://www.911review.com/articles/jm/cache/BBCNews_wtcfell.html): "Fire reaches 800 [degrees] C — hot enough to melt steel floor supports."

That is one of the things I warned you about: In the 20th Century, steel melted at 1535 degrees Celsius (2795 F) (see http://www.chemicalelements.com/elements/fe.html), but in the 21st Century, it melts at 800 degrees C (1472 F).

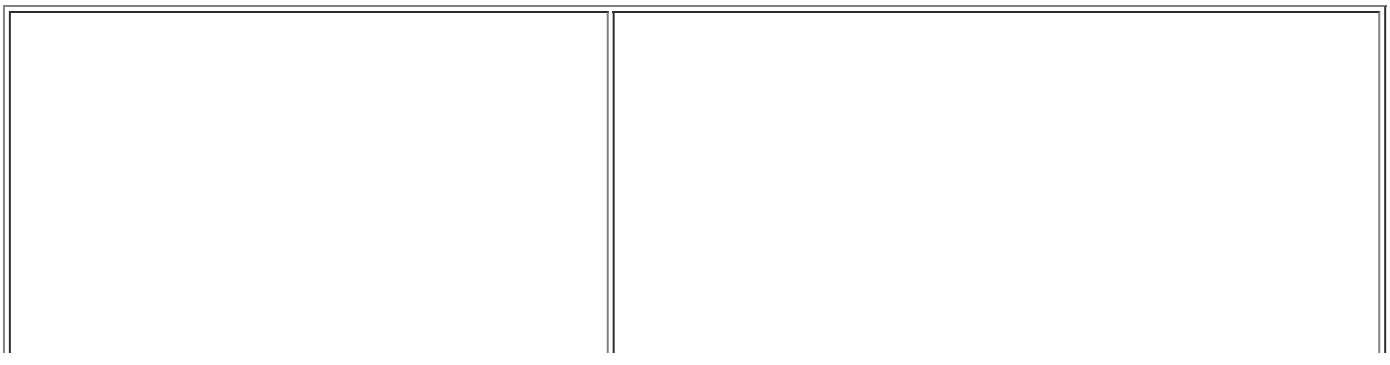
This might be explained as a reporter's mistake — 800 to 900 C is the temperature for forging wrought iron. As soft as wrought iron is, of course, it would never be used for structural steel in a landmark skyscraper. (Descriptions of cast iron, wrought iron, steel, and relevant temperatures discussed at http://www.metrum.org/measures/castiron.htm or http://911review.com/articles/jm/cache/castiron.htm.)

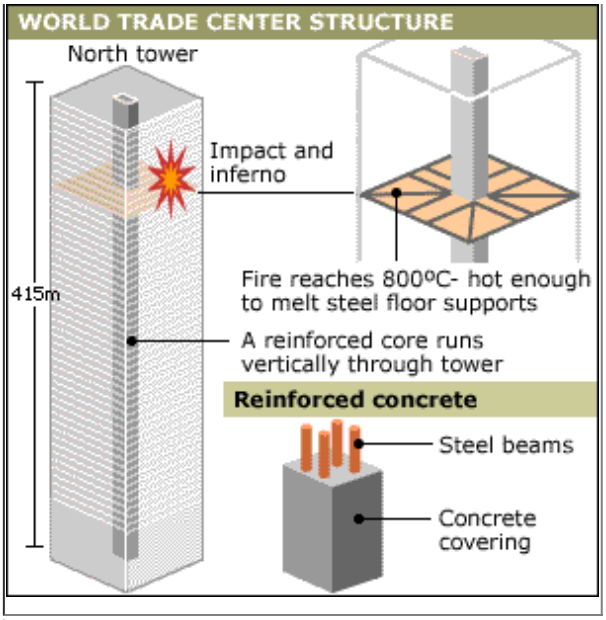
But then lower down, the BBC page repeats the 800 C number in bold, and the article emphasizes that the information comes from Chris Wise, "Structural Engineer." Would this professional individual permit himself to be misquoted in a global publication?

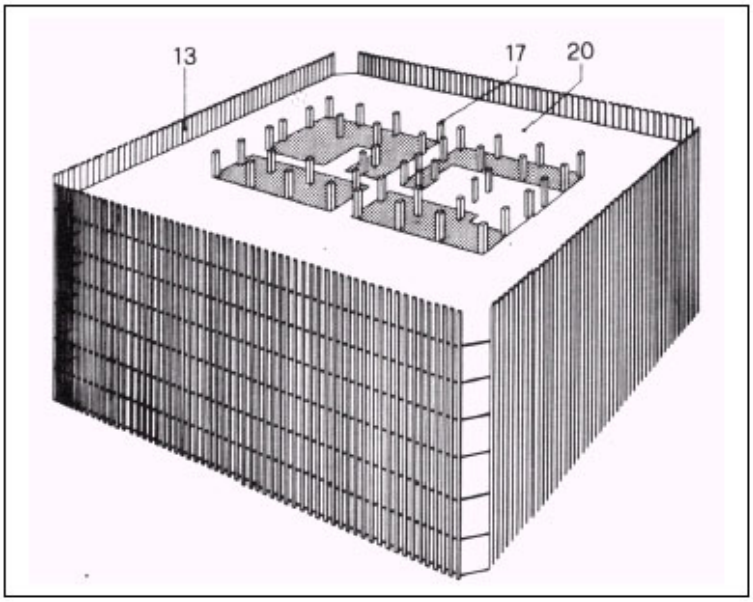
Eduardo Kausel, an M.I.T. professor of civil and environmental engineering, spoke as follows to a panel of Boston area civil and structural engineers: "I believe that the intense heat softened or melted the structural elements — floor trusses and columns — so that they became like chewing gum, and that was enough to trigger the collapse." Kausel is apparently satisfied that a kerosene fire could melt steel — though he does not venture a specific temperature for the fire (http://www.911review.com/articles/jm/cache/sciam_whenfell.html).

I feel it coming on again — that horrible cynicism that causes me to doubt the word of the major anchor-persons. Please just think of this essay as a plea for help, and do NOT let it interfere with your own righteous faith. The collapse of America's faith in its leaders must not become another casualty on America's skyline.

In my diseased mind, I think of the floors of each tower like a stack of LP (33-1/3 RPM) records, except that the floors were square instead of circular. They were stacked around a central spindle that consisted of multiple steel columns interspersed with dozens of elevator shafts (see http://www.skyscraper.org/tallest/t_wtc.htm, http://www.civil.usyd.edu.au/wtc.htm and http://www.GreatBuildings.com/buildings/World_Trade_Center.html).



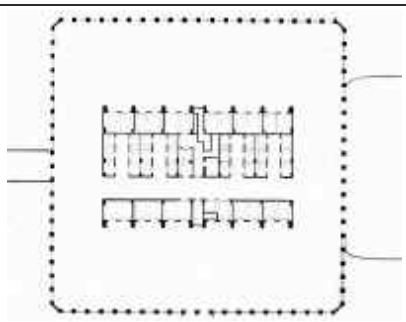




Images cached from BBC page (http://news.bbc.co.uk/hi/english/world/americas/newsid_1540000/1540044.stm or http://www.911review.com/articles/jm/cache/BBCNews_wtcfell.html)
and HERA report by G. Charles Clifton (http://www.hera.org.nz/PDF%20Files/World%20Trade%20Centre.pdf or http://www.911review.com/articles/jm/cache/clifton.pdf).
Items indicated in Clifton image (right): **13**. Exterior columns; **17**. Interior columns; **20**. Usable office space

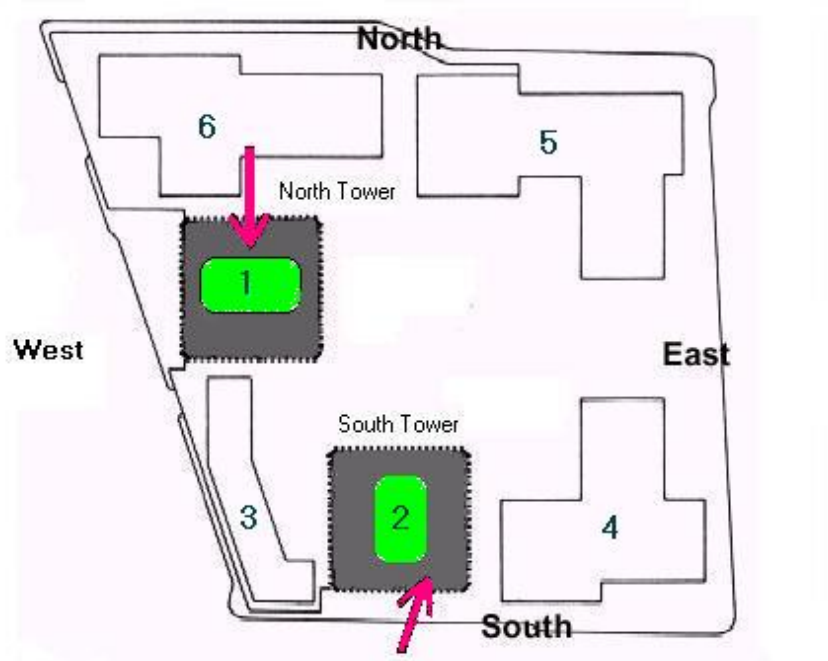
BBC News Image (left) is misleading:

1. A "beam" is always horizontal, "columns" are vertical. The vertical steel supports in the core were columns.
2. The central columns occupied about 25% of the floor area, not 10% as is shown on the left.
3. The central columns were not encased in a single block of concrete, but interspersed with elevator shafts



Typical floor plan of WTC tower (from http://www.civil.usyd.edu.au/wtc.htm#system).

The outside shape of the towers was almost square, but the inner core was more rectangular. Pictures from the early phases of construction photos show how the rectangular inner cores were oriented in the finished buildings (http://www.GreatBuildings.com/cgi-bin/gbi.cgi/World_Trade_Center_Images.html/cid_wtc_mya_WTC_const.4.gbi). Note that the north tower core was aligned east-west, and the south tower core was aligned north-south.



This drawing shows the two WTC towers (black) and the paths of the attacking aircraft (red). Within the profile of each tower, the shape of the central core is shown by the green rectangle. WTC buildings 1 through 6 are numbered, WTC 7, north of 6, is not shown.

With the central core bearing the weight of the building, the platters were tied together and stabilized by another set of steel columns at the outside rim, closely spaced and completely surrounding the structure. This resulting structure was so stable that the top of the towers swayed only three feet in a high wind. The architects called it a "tube-within-a-tube design."

The TV experts told us that the joints between the floors and central columns melted (or the floor trusses, or the central columns, or the exterior columns, depending on the expert) and this caused the floor to collapse and fall onto the one below. This overloaded the lower floor, and the two of them fell onto the floor below, and so on like dominos (see http://news-info.wustl.edu/News/nrindex00/harmon.html or http://www.911review.com/articles/jm/cache/harmon.html).

Back in the early 1970s when the World Trade Towers were built, the WTC was the tallest building that had ever been built in the history of the world. If we consider the architectural engineers, suppliers, builders, and city inspectors on the job, we can imagine they would be very careful to overbuild every aspect. If one bolt was calculated to serve, you can bet that three or four were used. If there was any doubt about the quality of a girder or steel beam, you can be sure it was rejected. After all, any failures would attract the attention of half the civilized world, and no corporation wants a reputation for that kind of stupidity — particularly if there are casualties.

I do not know the exact specifications for the WTC, but I know in many trades (and some I've worked), a structural member must be physically capable of three times the maximum load that will ever be required of it (BreakingStrength = 3 x WorkingStrength).

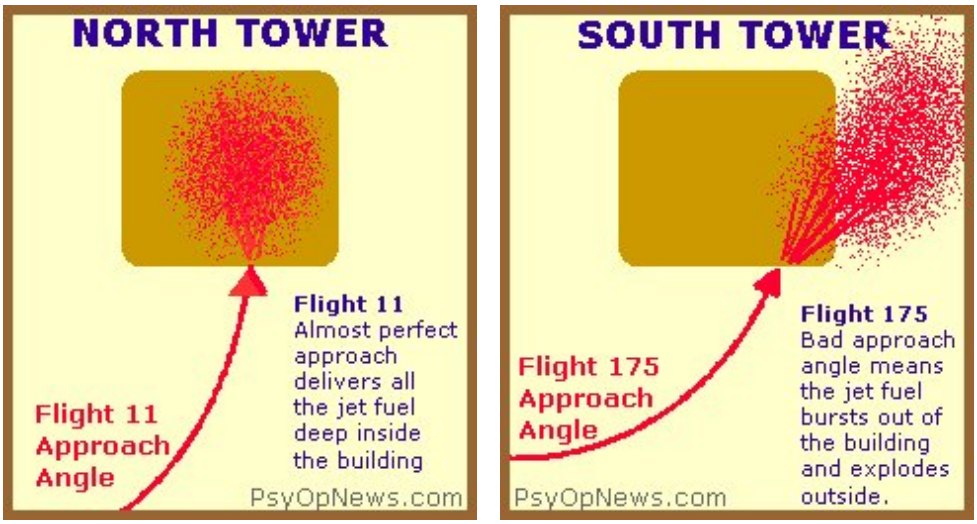
According to *Engineering and Technical Handbook* by McNeese and Hoag, Prentice Hall, 3rd printing, September 1959: page 47 (Table) *Safety Factors of Various Materials,* the mandatory safety factor for structural steel is 600%. That is, a steel structure may be rated for a load of only one sixth the actual theoretical limit.

Given that none of those floors was holding a grand piano sale or an elephant convention that day, it is unlikely that any of them were loaded to the maximum. Thus, any of the floors should have been capable of

supporting more than its own weight plus the two floors above it. I suspect the WTC was engineered for safer margins than the average railroad bridge, and the actual load on each floor was less than 1/6 the BreakingStrength. The platters were constructed of webs of steel trusses. Radial trusses ran from the perimeter of the floor to the central columns, and concentric rings of trusses connected the radial trusses, forming a pattern like a spider web (see http://news.bbc.co.uk/olmedia/1540000/images/_1540044_world_trade_structure300.gif). Where the radial trusses connected with the central columns, I imagine the joints looked like the big bolted flanges where girders meet on a bridge — inches thick bolts tying the beams into the columns.

In order to weaken those joints, a fire would have to heat the bolts or the flanges to the point where the bolts fell apart or tore through the steel. But here is another thing that gives me problems — all the joints between the platter and the central columns would have to be heated at the same rate in order to collapse at the same time — and at the same rate as the joints with the outer columns on all sides — else one side of the platter would fall, damaging the floor below and making obvious distortions in the skin of the building, or throwing the top of the tower off balance and to one side.

But there were no irregularities in the fall of those buildings. They fell almost as perfectly as a deck of cards in the hands of a magician doing an aerial shuffle.



Images cached from PsyOpNews:
The Split-Second Error

This is particularly worrisome since the first plane struck one side of the north tower, causing (you would think) a weakening on that side where the exterior columns were struck, and a more intense fire on that side than on the other side. And the second plane struck near the corner of the south tower at an angle that caused much of the fuel to spew out the windows on the adjacent side (see http://www.eionews.addr.com/images/wtc/southtowerpath.jpg).

Yet the south tower also collapsed in perfect symmetry, spewing dust in all directions like a Fourth of July sparkler burning to the ground (http://911review.com/articles/jm/cache/dustfountain.jpg).

This symmetry of descent is even more remarkable in the south tower because in the first moments of the collapse, the top 20 floors of the south tower tilted over to the south (http://news.bbc.co.uk/olmedia/1535000/images/_1538563_thecollapseap150.jpg or http://www.911review.com/articles/jm/cache/BBCNews_wtcfell_files/1538563t.jpg).

Whatever irregularities caused the top of the tower to tilt, subsequent pictures show the tower falling mostly within its own footprint. There are no reports of this cube of concrete and steel from the upper floors (measuring 200 ft. wide, 200 ft. deep, and 250 ft high) falling 1000 feet onto the buildings below.

Implosion expert Mark Loizeaux, president of Controlled Demolition, Inc. of Phoenix, MD, was also misled by the picture. Having observed the collapses on television news, Loizeaux said the 1,362-ft-tall south tower failed much as one would fell a tree (http://www.civil.usyd.edu.au/wtc_enr.htm or

http://www.911review.com/articles/jm/cache/usyd1.html).

I have recently seen a videotape rerun of the south tower falling. In that take, the upper floors descend as a complete unit, tilted over as shown on the BBC page, sliding down behind the intervening buildings like a piece of stage scenery.

That scene is the most puzzling of all. Since the upper floors were not collapsed (the connection between the center columns and the platters were intact), this assembly would present itself to the lower floors as a block of platters WITHOUT a central hole. How then would a platter without a hole slide down the spindle with the other platters? Where would the central columns go if they could not penetrate the upper floors as the platters fell?

If the fire melted the floor joints so that the collapse began from the 60th floor downward, the upper floors would be left hanging in the air, supported only by the central columns. This situation would soon become unstable and the top 30 floors would topple over (to use Loizeaux's image) much like felling the top 600 ft. from a 1,300 ft. tree.

This model would also hold for the north tower. According to Chris Wise's "domino" doctrine, the collapse began only at the floor with the fire, not at the penthouse. How was it that the upper floors simply disappeared instead of crashing to the earth as a block of thousands of tons of concrete and steel?

In trying to reconstruct and understand this event, we need to know whether the scenes we are watching are edited or simply shown raw as they were recorded.

But let us return our attention to the fire. Liquid fuel does not burn hot for long. Liquid fuel evaporates (or boils) as it burns, and the vapor burns as it boils off. If the ambient temperature passes the boiling point of the fuel and oxygen is plentiful, the process builds to an explosion that consumes the fuel.

Jet fuel (refined kerosene) boils at temperatures above 160 degrees Celsius (350 F) and the vapor flashes into flame at 41 degrees Celsius (106 F). In an environment of 1500 degrees F, jet fuel spread thinly on walls, floor, and ceiling would boil off very quickly. If there were sufficient oxygen, it would burn; otherwise it would disperse out the open windows and flame when it met oxygen in the open air — as was likely happening in the pictures that showed flames shooting from the windows. Some New Yorkers miles distant claimed they smelled the fuel, which would indicate fuel vapors were escaping without being burned.

Note that jet fuel burning outside the building would heat the outside columns, but would not heat the central load-bearing columns significantly. Following this reasoning, the jet fuel fire does not adequately explain the failure of the central columns.

Whether the fuel burned gradually at a temperature below the boiling point of jet fuel (360 C), or burned rapidly above the boiling point of jet fuel, in neither case would an office building full of spilled jet fuel sustain a fire at 815 degrees C (1500 F) long enough to melt 200,000 tons of steel. And certainly, the carpets, wallpaper, filing cabinets, occasional desks — nothing else in that office was present in sufficient quantity to produce that temperature.

The WTC was not a lumber yard or a chemical plant. What was burning?

OK, since it was mentioned, I am also upset with the quantity of concrete dust (see http://www.civil.usyd.edu.au/wtc.htm#why or http://www.911review.com/articles/jm/cache/usyd/index.htm#why). No concrete that I have ever known pulverizes like that. It is unnerving. My experience with concrete has shown that it will crumble under stress, but rarely does it just give up the ghost and turn to powder. But look at the pictures — it is truly a fine dust in great billowing clouds spewing a hundred feet from the collapsing tower.

The University of Sydney — Department of Civil Engineering

And the people on the ground see little more than an opaque wall of dust — with inches of dust filling the streets and the lungs afterward (http://eionews.addr.com/images/wtc/thirdexplosion.jpg or http://www.911review.com/articles/jm/cache/thirdexplosion.jpg).

What has happened here?

I need a faith booster shot. I would like to find a picture of all those platters piled up on the ground, just as they fell — has anyone seen a picture like that? I am told it was cumulative weight of those platters falling on each other that caused the collapse, but I don't see the platters piled up like flapjacks on the ground floor.

In this picture, the top of the picture is south and the right side is west. The ruined shell in the lower left is WTC building 6, and lower left of that is WTC 7, which was leveled by forces not explained. Picture cached from http://www.eionews.com before it was removed.

Instead, the satellite pictures show the WTC ruins like an ash pit (http://eionews.addr.com/images/wtc/numbersixafter_closeup.jpg or http://www.911review.com/articles/jm/cache/numbersixafter_closeup.jpg).

I am told by a friend that a man named Dr. Robert Schuller was on television telling about his trip to the ruins. He announced in the interview that there was not a single block of concrete in that rubble. From the original 425,000 cubic yards of concrete that went into the building, all was dust. How did that happen?

I have just one other point I need help with — the steel columns in the center. When the platters fell, those quarter-mile high central steel columns (at least from the ground to the fire) should have been left standing naked and unsupported in the air, and then they should have fallen intact or in sections to the ground below, clobbering buildings hundreds of feet from the WTC site like giant trees falling in the forest. But I haven't seen any pictures showing those columns standing, falling, or lying on the ground. Nor have I heard of damage caused by them.

Now I know those terrorists must have been much better at these things than I am. I would take one look at their kamikaze plans with commercial jets and I would reject it as — spectacular maybe, but not significantly damaging. The WTC was not even a strategic military target.

But if I were given the assignment of a terrorist hijacker, I would try to hit the towers low in the supports to knock the towers down, maybe trapping the workers with the fire and burning the towers from the ground

up, just as the people in the top stories were trapped. Even the Japanese kamikaze pilots aimed for the water line.

But you see, those terrorists were so sure the building would magically collapse that way, the pilot who hit the north tower chose a spot just 20 floors from the top (http://abcnews.go.com/sections/us/DailyNews/worldtrade010911.html or http://www.911review.com/articles/jm/cache/ABCNews1.html).

And the kamikaze for south tower was only slightly lower — despite a relatively open skyline down to 25 or 30 stories (http://a188.g.akamaitech.net/f/188/920/15m/www.washingtonpost.com/wp-srv/nation/graphics/rubble_ny091101.htm or http://911review.com/articles/jm/cache/washingtonpost_geog.html).

The terrorists apparently predicted the whole scenario — the fuel fire, the slow weakening of the structure, and the horrific collapse of the building — phenomena that the architects and the NY civil engineering approval committees never dreamed of.

Even as you righteously hate those men, you have to admire them for their genius.

Few officials or engineers have been surprised by this turn of events — apparently everyone certified it for airplane collisions, but almost no one was surprised when both collisions caused utter catastrophes in both towers. In fact, their stutters and mumbles and circumlocutions would make a politician blush:

> "Eventually, the loss of strength and stiffness of the materials resulting from the fire, combined with the initial impact damage, would have caused a failure of the truss system supporting a floor, or the remaining perimeter columns, or even the internal core, or some combination." (http://www.civil.usyd.edu.au/wtc.htm#why or http://www.911review.com/articles/jm/cache/usyd1.html#why)

In a hundred years of tall city buildings, this kind of collapse has never happened before. Never. It was not predicted by any of the experts involved when the WTC towers were built. But now that it has happened, everybody understands it perfectly and nobody is surprised.

Is this civil engineering in the Third Millennium — a galloping case of perfect hindsight?

Scientific American, prestigious journal of cutting edge science, remarked:

> Despite the expert panel's preliminary musings on the failure mechanisms responsible for the twin towers' fall, the definitive cause has yet to be determined. Reportedly, the National Science Foundation has funded eight research projects to probe the WTC catastrophe. The American Society of Civil Engineers is sponsoring several studies of the site. Meanwhile the Structural Engineering Institute of the American Society of Structural Engineers has established an investigative team to analyze the disaster and learn from the failure (http://www.sciam.com/explorations/2001/100901wtc or http://www.911review.com/articles/jm/cache/sciam_whenfell.html).

Amazing: At least ten independent professional studies for an incident every professional seems already to understand. Notwithstanding the apparent lack of answers and all these studies not yet done, the very next paragraph is headed, "**How the Towers Fell**," and the reader is treated to a shotgun assortment of speculations, each delivered with the beard-stroking and pipe-puffing certainty that no explanation would ever be seriously challenged.

I have found only one expert candidly admitting his surprise. This was Mark Loizeaux, president of Controlled Demolition, Inc. of Phoenix, MD:

> Observing the collapses on television news, Loizeaux says the 1,362-ft-tall south tower, which was hit at about the 60th floor, failed much as one would like (sic) fell a tree. That is what was expected, says Loizeaux. But the 1,368-ft-tall north tower, similarly hit but at about the 90th floor, "telescoped," says Loizeaux. It failed vertically, he adds, rather than falling over. "I don't have a clue," says Loizeaux, regarding the cause of the telescoping. (http://www.civil.usyd.edu.au/wtc_enr.htm or http://www.911review.com/articles/jm/cache/usyd1.html).

There was one highly qualified engineer in New Mexico who thought the collapse could only happen with the help of demolition explosives, and he was foolish enough to make the statement publicly.

> Romero is a former director of the Energetic Materials Research and Testing Center at Tech, which studies explosive materials and the effects of explosions on buildings, aircraft and other structures.
>
> Romero said he based his opinion on video aired on national television broadcasts.
>
> Romero said the collapse of the structures resembled those of controlled implosions used to demolish old structures.
>
> "It would be difficult for something from the plane to trigger an event like that," Romero said in a phone interview from Washington, D.C.
>
> Romero said he and another Tech administrator were on a Washington-area subway when an airplane struck the Pentagon.
>
> He said he and Denny Peterson, vice president for administration and finance, were en route to an office building near the Pentagon to discuss defense-funded research programs at Tech.
>
> If explosions did cause the towers to collapse, the detonations could have been caused by a small amount of explosive, he said.
>
> "It could have been a relatively small amount of explosives placed in strategic points," Romero said.
>
> The explosives likely would have been put in more than two points in each of the towers, he said.
>
> (Article originally at http://www.abqjournal.com/aqvan09-11-01.htm, then was moved to http://www.abqjournal.com/news/aqvan09-11-01.htm but now back in the original location — see copy at http://www.911review.com/articles/jm/cache/ABQjournal.html.)

But Romero recanted ten days later and admitted the whole thing was perfectly natural and unsurprising. I wonder what happened in those ten days to make him so smart on the subject so quickly. The retraction is now displayed above the original on the Albuquerque Journal web page.

And then, as though demonstrating how normal this "building collapsing" phenomenon is, WTC buildings Six and Seven "collapsed," too:

> Other buildings — including the 47-story Salomon Brothers building [WTC 7] — caved in later, weakened by the earlier collapses, and more nearby buildings may still fall, say engineers. (http://news.bbc.co.uk/hi/english/world/americas/newsid_1540000/1540044.stm or http://911review.com/articles/jm/cache/BBCNews_wtcfell.html#why)

(These ruins are shown in aerial photo http://www.eionews.addr.com/images/wtc/numbersixafter.jpg or http://www.911review.com/articles/jm/cache/numbersixafter.jpg).

It seems no building in the area, regardless of design, is immune to galloping WTC collapse-itis. It never happened in the 20th Century, but welcome to the physical universe laws of the Third Millennium.

Pardon me, but this recitation has not given me the relief I hoped for. I must get back to work.

I believe in the President, the Flag, and the Statue of Liberty. I believe in the honesty of the FBI and the humility of military men. I believe in the network news anchor-persons, who strive to learn the truth, to know the truth, and to tell the truth to America.

And I believe all Americans are so well educated in the basic physics discussed above, they would rise up in fury if someone tried to pull a cheap Hollywood trick on them.

Hand me that remote, will you? I believe <clonk>. I believe <clonk>. I believe ...

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Part II